CLAIMS

1. An IC package testing device comprising:

an IC package receiver;

a pressure pad;

a lid;

a latch; and,

one or more springs that apply a normal force to an IC package through the pressure pad when the lid is in a latched position.

2. The device of claim 1 wherein the variable number of springs further comprises at least two compliance leaf springs.

3. The device of claim 2, including:

a first pivot pin received through coaxially aligned holes in the pressure pad and one or more of said leaf springs, said holes in the pressure pad aligned centrally in the pressure pad and said leaf springs positioned on either side of the pressure pad: and,

second and third pivot pins aligned parallel to the first pivot pin, and received through coaxially aligned holes in the leaf springs and the lid.

4. The device of claim 3, wherein the pressure pad and lid are sized to provide space between the pressure pad and lid for positioning multiple leaf springs on both sides of the pressure pad.

5. The device of claim 2, wherein the pressure pad and lid are sized to provide space between the pressure pad and lid for positioning multiple leaf springs on both sides of the pressure pad.

6. The device of claim 2 wherein the at least two leaf springs are positioned on opposite sides of the pressure pad.

7. The device of claim 2 wherein the at least two leaf springs are positioned side-by-side along one side of the pressure pad.

8. The device of claim 2 wherein multiple leaf springs are positioned side-by-side on opposite sides of the pressure pad.

9. An IC package testing device comprising:

an IC package receiver including a recess sized and shaped to receive an IC package;

a lid attached to said receiver by a hinge;

a pressure pad positioned in the lid so as to overlie the recess;

a closure mechanism positioned opposite the hinge; and,

a leaf spring coupled by a center pivot to said pressure pad, said leaf spring being formed in a roughly bow shape extending symmetrically about said center pivot to two distal fixed points, said two distal fixed points pivotably coupled to said lid, wherein said leaf spring applies a normal force to an IC package located in said receiver through the pressure pad when said closure mechanism closes said lid on said IC package receiver.

10. The device of claim 9, said leaf spring further comprising an effective beam length longer than a linear distance between said two distal fixed points.

11. The device of claim 9, said leaf spring further comprising a center pivot attachment hole, spring material extending symmetrically to distal end portions, both end portions terminating in fixed attachment holes spaced equidistantly from the center pivot attachment hole, and both end portions of the material curving proximally toward the center pivot attachment hole, such that a

curvilinear length of the leaf spring is greater than a linear distance between the fixed attachment holes.

12. The device of claim 9, said compliance leaf springs further comprising a modulus of elasticity within a range of 18 x 106 psi to 22 x 106 psi.

13. The device of claim 9, said compliance leaf springs further comprising a Beryllium Copper alloy.

14. The device of claim 13, said compliance leaf springs further comprising a corrosion resistant plating.

15. The device of claim 9, said compliance leaf springs further comprising a modulus of elasticity within a range of 27 x 106 psi to 30 x106 psi.

16. The device of claim 9, said compliance leaf springs further comprising stainless steel.

17. The device of claim 9, including:

a first pivot pin received through coaxially aligned holes in the pressure pad and one or more of said leaf springs, said holes in the pressure pad aligned centrally in the pressure pad and said leaf springs positioned on either side of the pressure pad; and,

second and third pivot pins aligned parallel to the first pivot pin, and received through coaxially aligned holes in the leaf springs and the lid.

18. The device of claim 17, wherein the pressure pad and lid are sized to provide space between the pressure pad and lid for positioning multiple leaf springs on both sides of the pressure pad.

19. A method for testing IC packages comprising:

placing an IC package in an IC package receiver;

clamping the IC package into the receiver by closing a pressure pad onto the IC package; and,

applying a normal force with variable resilience to the IC package through the pressure pad by closing a latch.

20. The method of claim 19, further comprising applying the variable resilience with a plurality of leaf springs.

21. The method of claim 20, further comprising engaging the leaf springs with a latch using a latch cam.

22. The method of claim 20, wherein differently sized IC packages are accommodated by changing the number of leaf springs.

23. The method of claim 20, further including changing the number of leaf springs to provide a resilient force in correlation to one or more factors including the width and length of the IC package.

24. The method of claim 23, wherein the factors further include one or more of the number of leads on the IC package and the geometry of the leads on the IC package.

25. An IC package testing arrangement comprising:

an IC package having predetermined lateral dimensions and a thickness of a predetermined range;

an IC package receiver; and,

a means for selectably applying a resilient normal force to the IC package.

26. The arrangement of claim 25, said means for selectably applying a resilient force to the IC package includes a selectable number of springs.